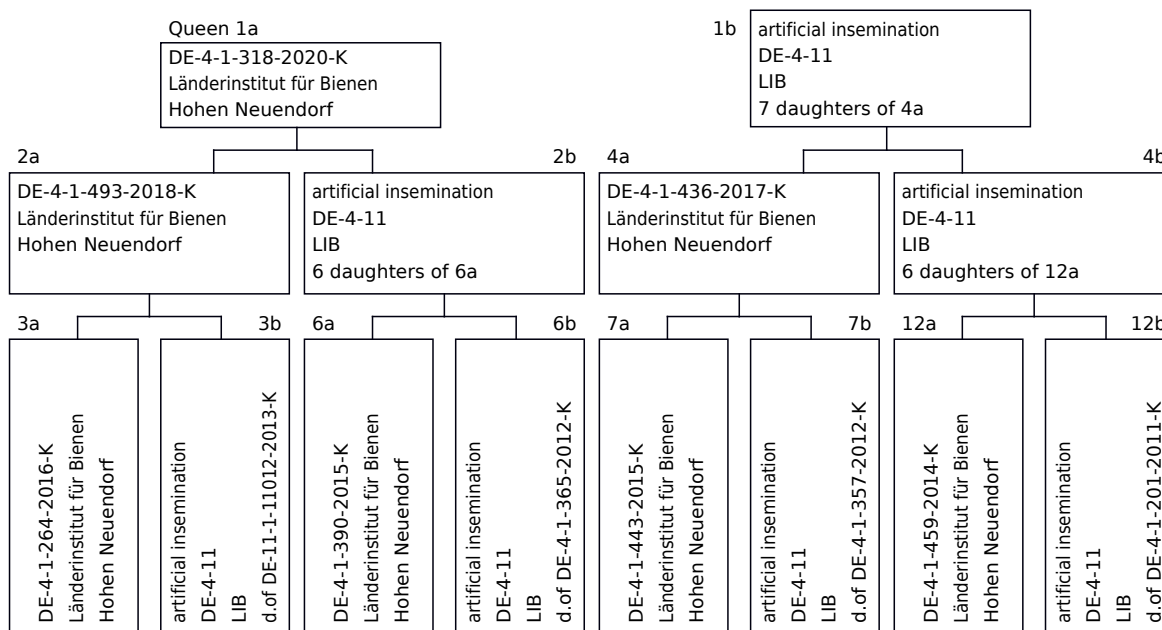


Tester of the queen: Länderinstitut für Bienenkunde, 16540 Hohen Neuendorf, DE-4-1, Apiary 1
 Breeder of the queen: Länderinstitut für Bienenkunde, 16540 Hohen Neuendorf, DE-4-1
1a Studbook number: **DE-4-1-318-2020-K**

Race line: -33 Sign: blue 18 Daughters of Queen: 4.7%
 Generation: Hatch date: 17.06.2020 Workers: 7.9%

A. Pedigree



B. Own performance

Performance test year	No. of the colony 515			comparable colonies at the apiary		
	kg	%	Ranking	number	Yield average kg	
	24	85.8	21	32	28.0	
	Assessment*	Breeding values			Reliability	
Total breeding value¹	-	110	■			
Honey yield	-	100	■			0.48
Defensive behavior	3.60	110	■			0.58
Steadiness on comb	3.70	112	■			0.58
Swarming drive	4	106	■			0.46
Varroa	-	107	■			0.53
Performance index	-	108	■			0.48
Robustness in winter	4		70%	100%	170%	
Development in Spring	3.70					
Colony strength	3.70					

¹In accordance with the resolution of the breeder convention of 9th April 2011, for the total breeding value, Varroa tolerance is weighted by 40% and honey yield, gentleness, calmness during inspection, and swarming tendency are each weighted by 15%.

C. Performance of the sisters

See page 2

D. Body features, see appendix

See attached characteristic documents:

E. Results

Class Av

Selected for Varroa tolerance. Suitable for breeding with no restrictions; suitable for use as a 4a colony at frequently visited mating stations.

Breeding selection report DE-4-1-318-2020-K

Page 2

Performance of the sisters

Amount of checked sisters: 10

Studbook number	Tester of the queen	Apiary	Total breeding value	Yield kg	Breeding Value Honey	Defensive behavior	Breeding Value Defensive Behavior	Calmness during inspection	Breeding Value Calmness	Swarming drive	Breeding Value Swarming	Varroa-index	Performance index
DE-4-1-303-2020	DE-4-1	1	103	21.4	98	3.5	105	3.3	107	4	106	98	105
DE-4-1-304-2020-K	DE-4-1	1	106	40.4	105	3.4	105	3.2	106	4	105	103	106
DE-4-1-315-2020	DE-4-1	1	103	33.8	103	3.4	106	3.3	107	4	105	97	106
DE-4-1-318-2020-K	DE-4-1	1	110	24	100	3.6	110	3.7	112	4	106	107	108
DE-4-1-319-2020-K	DE-4-1	1	107	32.8	102	3.4	105	3.2	106	4	105	106	105
DE-4-1-306-2020	DE-4-1	2	108	43.3	105	3.6	106	3.7	108	4	105	106	107
DE-4-1-308-2020	DE-4-1	2	104	28.1	100	3.2	101	3.2	102	4	103	104	102
DE-4-1-314-2020	DE-4-1	2	103	30.6	101	3.5	104	3.4	105	3.6	101	101	103
DE-4-1-316-2020-K	DE-4-1	2	108	28.6	101	3.6	106	3.6	107	4	104	107	105
DE-4-1-324-2020-K	DE-4-1	2	105	35.5	103	3.6	104	3.3	104	4	104	102	104